REMARKS

This Preliminary Amendment responds to the Office Action dated January 29, 2004 in which the Examiner objected to claim 8, rejected claims 1-13 under 35 U.S.C. §102(b) and stated that claims 14-18 are allowed.

As indicated above, minor informalities in claim 8 have been corrected. Therefore, applicants respectfully request the Examiner withdraws the objection to claim 8. Additionally, typographical errors have been corrected in claims 9 and 11. Claim 13 has been amended to correspond to claim 12. The amendments to claims 8, 9, 11 and 12 are unrelated to a statutory requirement for patentability and do not narrow the literal scope of the claims.

Claim 1 claims an image processing device and claim 4 claims an image processing method for processing images which are recorded in a recording medium. The device comprises commanding a processing to be executed for the image by an indicator. Rank data is set up by a controller in accordance with the processing commanded by the indicator. A deletion directional member directs deletion of an image recorded in the image recording medium. A compressor compresses the image instead of deleting the image when the deletion of the image is directed. Finally, the compressed image is stored.

Through the structure and method of the claimed invention compressing the image instead of deleting an image when deletion of the image is directed as claimed in claims 1 and 4, the claimed invention provides an image processing device and method in which an image which is to be deleted is compressed rather than deleted so that an incorrect operation of the delete button prevents the image

from being completely erased. The prior art does not show, teach or suggest the invention as claimed in claims 1 and 4.

Claim 5 claims an image processing device and claim 8 claims an image processing method for processing images which are recorded in a recording medium. The device comprises commanding a processing to be executed for the image by an indicator. A recorder records a time when the indicator commands processing. A timer measures an elapsed time since the recorder recorded. A controller changes the compression rate, which is set based upon rank for the image data, based on output from the timer or the measured elapsed time and date.

Through the structure and method of the claimed invention changing a compression rate based upon rank for an image as claimed in claims 5 and 8, the claimed invention provides an image processing device and method which allows the compression rate to be altered in accordance with rank of the image based on history data while decreasing file size. The prior art does not show, teach or suggest the invention as claimed in claims 5 and 8.

Claim 10 claims an image processing device and claim 12 claims an image processing method for processing images which are recorded in a recording medium. The device comprises commanding a process to be executed for an image by an indicator. A controller sets up a rank value based upon the processing to be executed for the image. A recorder records a time when the indicator commands the processing. A timer measures an elapsed time since the time when the processing was commanded. A detector detects that the indicator gives no command for a predetermined time or more based upon the output from the timer. The controller

sets a lower rank value when no command is given for the image for a predetermined time or more.

Through the structure and method of the claimed invention a) setting up a rank value based upon processing to be executed for the image, and b) lowering the rank value when no command is given for a predetermined time or more as claimed in claims 10 and 12, the claimed invention provides an image processing device and method which allows history data to be reevaluated over time. The prior art does not show, teach or suggest the invention as claimed in claims 10 and 12.

As indicated above, claims 1, 4, 5, 8, 10 and 12 have been amended to make explicit what is implicit in the claims. The amendment is unrelated to a statutory requirement for patentability and does not narrow the literal scope of the claims.

Claims 1-13 were rejected under 35 U.S.C. §102(b) as being anticipated by *Ichimura* (U.S. Patent No. 6,188,831).

Ichimura appears to disclose a data storing apparatus, such as a conference minutes recording system or a news gathering recording system, for storing data such as conversation audio from minutes and news gathering, and the images of conference and news gathering scenes and conference memos and news gathering memos related to these. (col. 1, lines 12-17) FIG. 1 is a block diagram showing the data storage apparatus composed of an audio data input section 1, an image data input section 2, a condition-matching interval detection section 3, a time-series data storing section 4, a correspondence relationship storing section 5, a compression section 6, a time-series data storing section 7, a playback section 8, a control section 9, a display section 10, a user-input data detection section 11, and a playback specification section 12, each connected to a system bus 13. The output terminal of

the audio data input section 1 is also connected to the condition-matching interval detection section 3. (col. 10, lines 51-63) The condition-matching interval detection section 3 determines that active conversation is being conducted, the shorter the time interval is from when one speaker finishes speaking to when another speaker starts speaking. (col. 12, lines 4-10) In addition, it is also determined that active conversation is being conducted when one speaker starts speaking before another speaker has finished speaking. The correspondence relationship storing section 5 creates a correspondence between and stores the user-input data input by the user, for example, using the electronic pen 23, data (e.g., the relative coordinates and absolute coordinates on the X-Y coordinate axes and the like) specifying the display position of this user-input data on the screen, and the storage address in the time-series data storing section 4 of the image data or audio data input in an important interval, such as an interval determined by this user input data and the condition-matching interval detected by the above-described condition-matching interval detection section 3. (col. 12, lines 50-60) The compression section 6 configuration accomplishes data compression on the image data stored in the above-described time-series data storing section 4. In this case, the compression section 6 is composed so that the data compression ratio or data compression method can be dynamically varied on the basis of the data of the interval specified by the user-input data from the correspondence relationship storing section 5 and the detection results of the condition-matching interval detection section 3. (col. 13, lines 10-19) The time data storing section 7 stores the time when recording of the input audio signal and image signal to the time-series data memory 4 was started. Furthermore, the time data storing section 7 has a function for measuring the

elapsed time from the recording start time. Furthermore, when the elapsed time from the recording start time has reached a predetermined set time the time data storing section 7 outputs a compression trigger timing signal that is the impetus for starting the above-described compression of the image data of the time-series data storing section 4 by the compression section 6. (col. 13, lines 48-64) The image data and/or audio data stored in the time-series data storing section 4 are compressed when the level of importance is low (such as when a preset time has elapsed since the data was stored), so as to form empty capacity in the memory of the time-series data storing section 4. However, condition-matching intervals in which user-input data has been detected in that interval are deemed to be important intervals and those intervals are not compressed or the compression ratio is reduced so that high quality is maintained. FIG. 16 is a drawing explaining the actions during data compression along with the flow of each type of data and the flow of the output of each section during his time. The time data storing section 7 outputs a compression process start command to the correspondence relationship storing section 5 when the elapsed time from when the audio data and image data were stored in the time-series data storing section 4 has reached a preset time. In other words, in step S502 of the process routine of the time data storing section 7 in FIG. 13, the current time supplied from an unrepresented clock circuit and the storage start time stored in the time data storing section 7 are compared and a determination is made as to whether or not the storage time of the data has passed a preset time. When it is determined that this preset time has elapsed, the flowchart moves to step S503 and a compression process start is requested of the correspondence relationship storing section 5. Furthermore, when this request has been sent, or

when it is determined in step S502 that the preset time has not elapsed, the flowchart returns to step S500. For example, when the above-described preset time is set to one month, the compression process start request is generated one month after the storage start time. The data newly stored in the time-series data storing section 4 undergoes a compression process one month later. (col. 18, line 51 through col. 19, line 21) FIG. 18 is a drawing showing an example when image data (address a1 and address a2), recognized as important intervals is maintained at high quality and intervals other than this are compressed with a high compression ratio. In this example, the image data of intervals that are not important undergoes a thinning compression process wherein only the leading one frame out of a continuous 10 frames is retained and the data of the other frames is eliminated. On the other hand the image data of the important intervals does not undergo the above-described thinning process and all 10 continuous frames are stored. In step S603, the frame thinning process is conducted on the partial image strings of 10 frames with, in this example, only the leading frame being retained and the other nine frames being deleted. Then, in step S604, the compressed image strings following this frame thinning are rewritten to the time-series data storing section 4. (col. 20, line 66 through col. 21, line 15)

Thus, *Ichimura* merely discloses a thinning compression process wherein only a leading frame out of a continuous ten frames is retained and the other frames are eliminated (column 20, line 66 through column 21, line 15). Nothing in *Ichimura* shows, teaches or suggests compressing an image rather than deleting an image when the deletion of the image is directed as claimed in claims 1 and 4. Rather,

Ichimura merely discloses a thinning compression process where only the leading frame is retained while the remaining frames are the deleted.

Additionally, *Ichimura* merely discloses dynamically varying the compression ratio based on data indicating a condition-matching interval (i.e., whether active conversation is conducted, column 19, lines 59-67) or dynamically changing the storage time, the compression ratio of intra-frame compression or inter-frame compression, a time gap of intermittent recording, a color data thinning ratio or a brightness data thinning ratio (column 24, lines 29-38). Nothing in *Ichimura* shows, teaches or suggests changing a compression rate based upon rank data for an image as claimed in claims 5 and 8. Rather, *Ichimura* merely discloses dynamically changing the compression ratio of an image.

Finally, *Ichimura* merely discloses a condition-matching interval which is used to vary a compression ratio (column 19, lines 59-67). Nothing in *Ichimura* shows, teaches or suggests a) setting up rank value based upon processing to be executed for an image and b) lowering the rank value when no processing command is given for a predetermined time as claimed in claims 10 and 12. Rather, *Ichimura* merely discloses a condition-matching interval.

Since nothing in *Ichimura* shows, teaches or suggests a) compressing an image instead of deleting an image when deletion of an image is directed as claimed in claims 1 and 4, b) changing a compression rate based upon rank data for an image, as claimed in claims 5 and 8 or c) setting up a rank value based upon processing to be executed for an image and lowering the rank value when no command for processing is detected for a predetermined time as claimed in claims

10 and 12, applicants respectfully request the Examiner withdraws the rejection to claims 1, 4, 5, 8, 10 and 12 under 35 U.S.C. §102(b).

Claims 2-3, 6-7, 9, 11 and 13 depend from claims 1, 5, 8, 10 and 11 and recite additional features. It is respectfully submitted that claims 2-3, 6-7, 9, 11 and 13 would not have been anticipated by Ichimura within the meaning of 35 U.S.C. §102(b) at least for the reasons as set forth above. Therefore, applicants respectfully request the Examiner withdraws the rejection to claims 2-3, 6-7, 9, 11 and 13 under 35 U.S.C. §102(b).

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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